

IN THE CLAIMS:

The status of the claims is as follows:

1. (Previously Presented) A sighting device for an examination by *in vivo* tomography of the eye of a subject, comprising at least one moving target having a programmable shape or trajectory, said target being displayed on viewing means and visible by at least one eye of said subject during the examination period.

2. (Previously Presented) The device according to claim 1, further including means for moving the target(s) so as to alternate fixation intervals on a given position with intervals termed rest on one or more other positions.

3. (Previously Presented) The device according to claim 2, further including means for adjusting the duration of the fixation intervals.

4. (Previously Presented) The device according to claim 3, further including means for adjusting the diversity of the rest positions.

5. (Previously Presented) The device according to claim 3, further including means for adjusting the duration of the rest positions.

6. (Previously Presented) The device according to claim 3, further including means for controlling a continuous movement of a moving target.

7. (Previously Presented) A sighting method for an examination by *in vivo* tomography of a subject's eye, implemented in a device according to claim 1, comprising a display on the viewing means, during the examination period, of at least one moving target having a programmable shape or a programmable trajectory and visible by at least one eye of said subject.

8. (Previously Presented) The method according to claim 7, further including a movement of the target(s) so as to alternate fixation intervals on a given position with intervals termed rest on one or more other positions.

9. (Previously Presented) The method according to claim 8, further including an adjustment of the duration of the fixation intervals.

10. (Previously Presented) The method according to claim 8, further including an adjustment of the diversity of the rest positions.

11. (Previously Presented) The method according to claim 7, further including a control of a continuous movement of a moving target.

12. (Previously Presented) The method according to claim 1, further including a tracking of the movements of the eye to be examined.

13. (Previously Presented) The method according to claim 1, wherein the tracking of the movements of the eye to be examined is carried out by imaging using a non-visible spectrum.

14. (Previously Presented) A system for examining the eye by *in vivo* tomography, comprising a tomography device including:

- a Michelson interferometer, producing a full field optical coherence tomography OCT setup, adaptive optical means, arranged between the interferometer and an eye to be examined, producing a correction of the wavefronts originating from the eye as well as those reaching the eye,

- means for detection, arranged downstream of the interferometer, capable of carrying out, without synchronous modulation or detection, the interferometric measurement according to the OCT principle, and

- a sighting device comprising at least one moving target, having a programmable shape or a programmable trajectory, said target being displayed on viewing means and visible from at least one of the eyes of said patient during the examination period.

15. (Previously Presented) The system according to claim 14, wherein the sighting device and the tomography device collaborate by using an *a priori* knowledge of the trajectory or of the shape of the target to readjust the images of the eye as a function of said trajectory.

16. (Previously Presented) The system according to claim 14, further including means for tracking movements of the eye to be examined, collaborating with the tomography device.

17. (Previously Presented) The system according to claim 14, further including means for enabling the image of the target to reach both eyes of the subject to be examined.

18. (Previously Presented) The system according to claim 14, further including means for enabling the image of the target to reach the unexamined eye of the target selectively from one side or from the other side of the examined eye.